

# Public Safety Broadband Network Update Presentation to SIEC

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Public Safety Interoperable  
Communications Office

# H.R. 3630: Key Features



- Allocates the “D-Block” spectrum to Public Safety
- Forms First Responder Network Authority (FirstNet)
  - Responsible for build out and maintenance of a national PSBN
  - Responsible for working with local jurisdictions to define boundaries, roles and responsibilities
- Authorizes auction of reclaimed radio/TV frequency with funding going toward the PSBN network build-out, related programs and deficit reduction
- Giveback of television band frequency currently allocated to some jurisdictions. [Note: No impact on Arizona.]

# HR 3630 Timeline



- Signed on 2/22/2012
- FCC – Public Safety Interoperability Board (PSIB)
  - » Group formed (3/22/2012 – 30 days)
  - » Network Plan completed (8/22/2012 – 180 days)
- FirstNet
  - » Group formed (8/22/2012 – 180 days)
  - » After 8/22/2012 - FirstNet develops individual state RFPs based on Network Plan developed by PSIB
  - » RFP delivered to each State (date NOT specified)
- States
  - » Opt-out Decision by Governor (90 days after receipt of RFPs); If do not Opt-out, automatically included.
  - » If Opt-out, then develop a State RFP (180 days after Opt-out)
  - » If Opt-out, FCC (not FirstNet) will accept or reject the State RFP after submitted by the State (date of decision NOT specified).

## Funding (1 of 2)



- Funding derived from auction of various frequency spectrum segments.
- \$135M for State and Local Implementation Grant Program – **Guidelines and Timing NOT yet established**
  - For state, regional, tribal and local jurisdictions to identify, plan and implement PSBN with regards to coverage, siting, and other needs (*Assume about \$2 million for AZ?*)
  - 20 percent match required, unless waived by NTIA (*Assume about \$400,00 for AZ?*)
  - These grants must be coordinated through a single, state-certified officer or governmental body (*i.e., AZDOHS?; PSIC?*)
- \$115 million to 911, E911, and NG911 [*Note: States which have raided 9-1-1 funds will not be eligible*]

## Funding (2 of 2)



- \$300 million to NIST-PSCR for research and development
- \$7B for the Network Construction Fund (estimated to cost \$13B but \$7B only allocated)
  - FirstNet can borrow up to \$2B upfront with the remainder coming from frequency auctions
  - Unclear how much will be available to states
- \$20.4 billion for deficit reduction

# Architecture



A core network with national and regional data centers (which may be distributed geographically)

- Based on commercial standards
- Provides connectivity between the radio access network (RAN) and the public Internet and the public switched network

## Backbone

- National IP/IPX Services – IP to State and Local Applications
- National Applications, Call, SMS, MMS and Media Servers

## Core

- Control and interface to backbone
- OSS/EMS, MME, HSS/PCRF, P-CSCF

Consists of cell site equipment, antennas, and backhaul equipment needed to enable wireless communications with devices using the PSBN built and operated taking into account the plans developed by the State, local and tribal entities

## Regional WANs

- Aggregation Point
- S-Gateway & P-Gateway

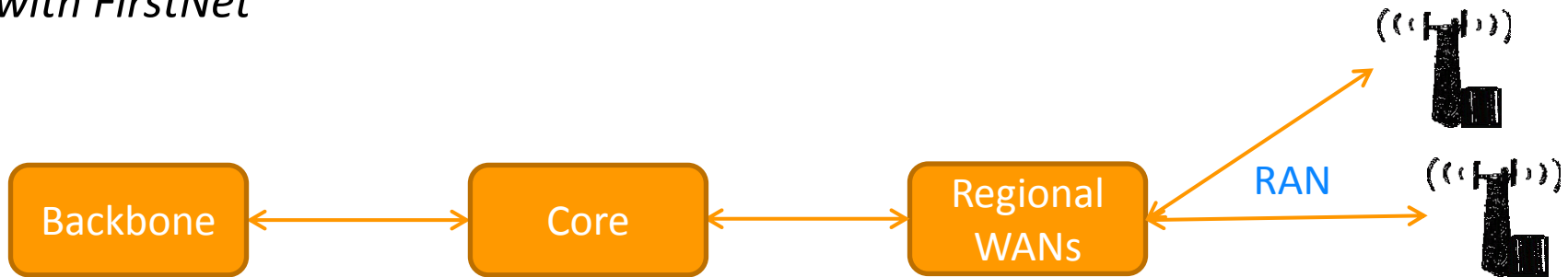
## RAN

- Radio Access Network (RAN)
- Cell Towers, Antennae and eNodeBs

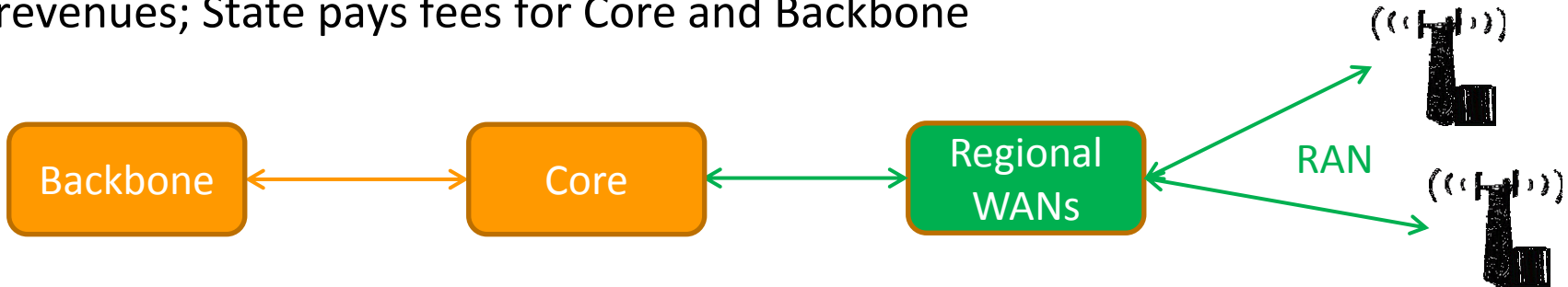
# Options



**Opt In (Default)** – State pays for User Equipment (UE); State pays fees for rest of the network (RAN, Regional WANs, Core & Backbone); *Negotiate SLAs with FirstNet*



**Opt Out** – State pays for UE, RAN and Regional WANs; NTIA Grants (80/20) are available; Enables maintenance / expansion based on subscriber and other revenues; State pays fees for Core and Backbone



# Opt in - Opt out



- If a State decides to build its own portion of the network in its State (Opt-out), the Governor must notify FirstNet, the FCC and the NTIA.
- The State must then develop and complete an RFP process - within 180 days of informing the Feds of its decision.
- The State must then present its State Plan to the FCC for approval – timeline not established. The State Plan must:
  - be in compliance with the minimum technical requirements of the Nationwide network
  - be interoperable with the Nationwide network.



# Fees



- The PSBN will be permitted to generate revenues.
- The total amount of fees collected may not exceed amount necessary to cover the cost of maintaining the network. This applies to FirstNet (Opt-in) or the States (Opt-out).
- The network operator is authorized to assess and collect:
  - Network user subscription fees to construct, manage and operate the network
  - Fees resulting from public/private partnerships
  - Backhaul services fees
  - Equipment access fees from entities for access to, or use of, any owned by the network owner (towers, etc.)

# Next Steps



- Continue to monitor, participate and report
- Form a workgroup to begin the assessment of the State's RAN needs?

Questions/Discussion

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